

Excluding migrant labor from the Malaysian bioeconomy: working and living conditions of migrant workers in the palm oil sector in Sabah

Puder, Janina

Veröffentlichungsversion / Published Version
Zeitschriftenartikel / journal article

Empfohlene Zitierung / Suggested Citation:

Puder, J. (2019). Excluding migrant labor from the Malaysian bioeconomy: working and living conditions of migrant workers in the palm oil sector in Sabah. *ASEAS - Austrian Journal of South-East Asian Studies*, 12(1), 31-48. <https://doi.org/10.14764/10.ASEAS-0012>

Nutzungsbedingungen:

Dieser Text wird unter einer CC BY-NC-ND Lizenz (Namensnennung-Nicht-kommerziell-Keine Bearbeitung) zur Verfügung gestellt. Nähere Auskünfte zu den CC-Lizenzen finden Sie hier:
<https://creativecommons.org/licenses/by-nc-nd/3.0/deed.de>

Terms of use:

This document is made available under a CC BY-NC-ND Licence (Attribution-Non Commercial-NoDerivatives). For more information see:
<https://creativecommons.org/licenses/by-nc-nd/3.0>

Excluding Migrant Labor From the Malaysian Bioeconomy: Working and Living Conditions of Migrant Workers in the Palm Oil Sector in Sabah

Janina Puder

► Puder, J. (2019). Excluding migrant labor from the Malaysian bioeconomy: Working and living conditions of migrant workers in the palm oil sector in Sabah. *Austrian Journal of South-East Asian Studies*, 12(1), 31-48.

In 2012, Malaysia launched its bioeconomy program, with the palm oil sector as one of the main pillars. In focusing on the societal processes that accompany the Malaysian plans to establish a bioeconomy, it is of special interest to understand which occupation groups in the palm oil sector are included and which are excluded from the socio-economic targets of the program. Research on the bioeconomy, as well as a green economy more broadly, often neglect the possible effects of green economy models on labor markets. I argue that low-skilled migrant workers employed in the Malaysian palm oil sector are structurally excluded from the national goal of enhancing the living and working conditions of the population by transforming into a bioeconomy. This exclusion intersects with a specific precarity caused by the socio-economic status of low-skilled migrant workers. The article shows that Malaysia's bioeconomy program reinforces the precarity of this group of workers, expressed in the lack of perspectives for upward mobility, their discrimination on the labor market, and in social barriers preventing them from further training. The findings presented are based on expert interviews and semi-structured qualitative interviews with workers from Sabah.

Keywords: Bioeconomy; Labor Migration; Palm Oil; Social Exclusion; Working and Living Conditions

~

INTRODUCTION

In the 1990s, Malaysia started to invest in biotechnology in order to capitalize the state's rich biodiversity endeavors into "biobusiness and wealth" (Arujanan & Singaram, 2018, p. 53). In the following years, the expansion of the biotechnology sector became a central concern of subsequent macro-economic development policies. In 2012, Malaysia launched the *Bioeconomy Transformation Programme* (BTP), joining countries such as Germany and South Africa dedicated to establishing bioeconomy as a way to create a sustainable, green growth model. Designed as a platform for private-public partnership, the BTP focuses on the upgrade of "industries and economic sectors that produce, manage and utilise biological resources" (BiotechCorp & MOSTI, 2017, p. 36). Moreover, with the launch of the program, Malaysia stressed a new development paradigm that links the promotion of biotechnology and the expansion of biomass use to the long-term development objectives of the state to reduce poverty in rural areas and increase

the human capital of Malaysians, eager to develop into a high-income country by 2020. In doing so, the state aims to reduce the income gap between the rural population – characterized by a high poverty rate, income insecurity, and limited social mobility – and the urban, higher skilled sectors of Malaysia's population. Hence, the program must not only be understood as an economic development strategy but also as a political project targeting socio-economic restructuring through the advancement of the living and working conditions of the rural population (BiotechCorp & MOSTI, 2017, p. 7; Pye, 2009).

In realizing these goals, the state depends on a vast supply of biomass (Kamal, 2016) and the industrial upgrading of the palm oil sector. Malaysia is, after Indonesia, the second largest producer of palm oil worldwide (United States Department of Agriculture [USDA], 2018). In 2017, agriculture made up the third largest share of Malaysia's GDP; significantly driven by the palm oil production (Department of Statistics Malaysia [DOSM], 2017). In the same year, 73% of agricultural land was used to cultivate oil palms (Kotecha, 2018, p. 2). The competitiveness of and high demand for palm oil on the global market for vegetable oils and the low salaries in the agricultural sector make palm oil particularly attractive for state and private investments (Cramb & McCarthy, 2016, p. 33; Pye, Daud, & Harmono, 2012, p. 331). Economically, the palm oil industry is considered a core sector serving “as a valuable source of feedstock to complement a multitude of novel food and non-food industries” for the production of “biofuels, bio-materials and chemicals” (Kamal, 2015), boosting Malaysia's ‘green’ competitiveness on a regional and global scale (BiotechCorp & MOSTI, 2017, n.d.). From a socio-economic perspective, the palm oil industry is identified as a strategic area serving a twofold purpose: First, as an essential income source and driving force for infrastructure development, the palm oil industry has a crucial impact on the development of rural areas. Second, with the industrial upgrading of the sector, the state expects the creation of new jobs in the up- and downstream areas as well as further skill-development and training possibilities (Kamal, 2015). A more detailed analysis, however, reveals that a significant share of the Malaysian work force appears to be excluded from the promise of an encompassing social upgrade through the transformation of the economy into a bioeconomy – namely labor migrants.

As the biggest “net-importer” of foreign labor in Southeast Asia (Ford, 2014, p. 311), migrant workers make up at least a quarter of the total work force in Malaysia. In the labor-intensive palm oil plantation sector, migrant workers are the dominant source of wage labor (Cramb & McCarthy, 2016, p. 43). In 2012, approximately half a million registered and presumably just as many unregistered foreign workers were employed in the Malaysian palm oil sector (Pye, Daud, Manurung, & Siagan, 2016), with an estimated 90% coming from Indonesia (Pye, 2013, p. 10). Taking the social restructuring measures targeted in the BTP into account, it must be noted that higher paid jobs with better working conditions and training possibilities in the palm oil sector are currently reserved for Malaysians, whereas migrant workers are hired to perform so-called ‘dirty’, ‘dangerous’, and ‘degrading’ jobs. The BTP seems to reproduce this segmentation between Malaysian and non-Malaysian workers in the palm oil sector, disregarding the specific vulnerabilities of migrant workers in the country.

Focusing on the socio-economic transformation processes that accompany the Malaysian plans to establish a bioeconomy, this article asks about the *mechanisms*

that are likely to exclude so-called ‘low-skilled’ migrant workers in the palm oil sector from the socio-economic restructuring measures of the BTP. Academic literature on the bioeconomy, and the green economy more broadly, often underexposes the effects of green economy models on labor markets (Anderson, 2016; Birch, 2019; Birch & Tyfield, 2015; Brand & Wissen, 2015; McCormick & Kautto, 2013). However, studies by the OECD (2017) and the German Federal Environment Agency (Umweltbundesamt [UBA], 2014) have shown that green transformation models are expected to benefit high-skilled while disadvantaging low-skilled workers. In order to capture the (possible) effects of the BTP on migrant workers, it is necessary to explore the current socio-economic status of low-skilled migrant workers in the palm oil sector. By doing so, it becomes possible to shed light on the extent to which corresponding economic policies and political strategies address existing or evolving patterns of social inequalities in the work sphere. Against this backdrop, the article explores how working and living conditions of low-skilled migrant workers in the Malaysian palm oil sector are affected by the BTP.

The article proceeds as follows: I give an overview on the state of the art on working and living conditions of migrant workers in the Southeast Asian palm oil industry. Following this, I situate the BTP within the Malaysian labor migration regime. By emphasizing the regulatory dimension of the regime, flanking the socio-economic status of low-skilled migrant workers, I argue that this group is politically excluded from the socio-economic targets outlined in the BTP. I continue by presenting findings from interviews I conducted during fieldwork in Sabah (East Malaysia), exploring the socio-economic status of low-skilled migrant workers in the Malaysian palm oil sector. Based on the analysis of these interviews, I show the mechanisms that exclude migrant workers from the socio-economic objectives of the BTP.

WORKING AND LIVING CONDITIONS IN THE PALM OIL SECTOR

Research on the social and socio-economic aspects of the Southeast Asian “Oil Palm Complex” (Cramb & McCarthy, 2016b) often concentrate on the land dispossession of the rural population (Li, 2014; McCarthy, 2010; Peluso & Lund, 2013; Pichler, 2015) and the subsequent integration or exclusion of ‘liberated’ landless peasants into the palm oil industry (Bissonnette, 2012; Cramb, 2016; McCarthy & Zen, 2016; Neilson, 2016; White & Dasgupta, 2010). In order to assure the livelihood of the family household, former subsistence farmers often choose or are forced to migrate internally (Li, 2015, 2016) or to another country (Sanderson, 2016, p. 387) – with Malaysia being a frequent destination within the region (Ford, 2014).

Empirical research on migrant workers in the Malaysian palm oil sector commonly explores the social effects of legal and political regulations. From a legal perspective, foreign workers have to apply for a working permit which is valid for three years, with the possibility of applying twice for a one-year extension. The Malaysian state grants different types of permits to specific national groups to work in selected branches of the economy, resulting in a state-regulated division of labor (Khoo, 2001, p. 181). Migrant workers are legally bound to a specified employer and are unable to choose or change jobs on their own (Pye et al., 2016). They are also required to attend regular medical check-ups. In case a worker is pregnant or severely ill he or

she faces immediate deportation (Pye, 2015, p. 192). In this context, another research strand concentrates on the illegalization of migrant workers and their dependents (Saravanamuttu, 2013). When migrant workers switch jobs without legal permission, when their working permits are withdrawn or expired, and they choose to (re)enter or stay in Malaysia without proper documents, they are illegalized (Pye et al., 2016). In comparison with documented workers, their position on the labor market changes in two contradicting ways. On the one hand, undocumented workers are free to “move from one job to another, they do not pay taxes and it is much more difficult to make them leave the country” (Garcés-Mascareñas, 2012, p. 84). On the other hand, they constantly fear being caught by state authorities or vigilante groups and eventually being deported (Pye et al., 2012, p. 332).

Migrant workers are neither allowed to bring family members nor to marry or start a family in Malaysia. Since plantations and mills “are far away and spatially separated from everyday Malaysian life” (Pye et al., 2012, p. 334), they are largely excluded from other parts of the (rural) population (Sanderson, 2016). Plantations and mills “cannot be reached by public transport and workers usually have no cars”, resulting in their “isolation” (Pye et al., 2012, p. 334) from urban areas and public infrastructure.

As Malaysian workers are mostly unwilling to work in the low-wage segment of the palm oil sector, companies and smallholders fall back on foreign workers (Pye et al., 2012). Workers migrating to Malaysia are foremost “attracted by . . . higher wages” and the “hope to save enough money in Malaysia to improve their livelihood possibilities at home” (Pye et al., 2016). But migration can be costly (Lindquist, 2017), and salaries of low-skilled migrant workers in the palm oil sector are usually significantly below the national average (Ford, 2014; ILO, 2016). This also applies to mill workers, who usually also have a migrant background. Studies have shown that within the palm oil sector there are great variations in the payment system different types of employers install, ranging from permanent contract-based payments to (in)formal payments determined by harvesting quotas (Pye et al., 2016). In order to exceed or even reach the minimum wage and in search of ways to bridge income insecurity, migrant workers rely on overtime work and/or additional sources of income (Pye et al., 2012, p. 333). In addition, plantation workers are often exposed to heavy manual labor and work tasks hazardous to their health (Tenaganita, 2002).

The Malaysian state externalizes reproduction costs to the country that sends foreign workers (Pye, 2015, p. 193). For example, as migrant children are not allowed to attend public schools in Malaysia, they may be sent to their country of origin in order to receive basic or further education, where they either stay on their own or female family members take care of them. In this context, remittances are an essential feature of the socio-economic organization of “transnational families” (Pries, 2018; Pye et al., 2012, p. 332). In the case of Indonesia, they are also of economic importance to the sending country, resulting in state-supported labor migration in order to manage “labor surpluses and to earn foreign currency” (Missbach & Palmer, 2018).

In a critical analysis of the working and living conditions of migrant workers in the Malaysian palm oil sector, Pye et al. (2012) elaborate on the concept of a dual labor regime, which institutionalizes a specific form of social and political precarity. In dealing with their precarious situations, Pye (2017) examines individual coping strategies of migrant workers, characterizing them as “everyday resistance” (p. 951).

Everyday resistance includes consciously choosing to work as undocumented workers to gain autonomy, using social networks to find employment, or cheating public officials to extend one's stay in Malaysia.

Research on the socio-economic dimensions of the Southeast Asian Oil Palm Complex currently lacks a perspective that analyzes structural processes of social exclusion of low-skilled migrant workers employed in the palm oil sector in view of the state's ambition to improve the working and living conditions of the rural population through the establishment of a Malaysian bioeconomy. In this context, social exclusion defines the marginalization of a group within a given societal context, mediated by directly or indirectly denying this group the access to basic public goods like welfare services (Mohr, 2005), spatially marginalizing it, preventing it from political participation, or the like (Bude & Willich, 2006; Kronauer, 2010). Processes of social exclusion become structural when state policies and social practices reinforce social segmentation over a period of time without destabilizing society as a whole (Bude & Willich, 2006, p. 22). In order to analyze the structural social exclusion of migrant workers from the socio-economic prospects of the Malaysian bioeconomy, I understand the BTP and respective policies as a political project aiming at the productive and social transformation of the country's model of capitalist development in order to become a fully industrialized country pioneering in green technologies and innovations. As the BTP operates within the framework of existing social inequalities, which structurally disadvantages low-skilled migrant workers on the labor market, the initiative must be analyzed against the backdrop of the state's migration regime co-structuring the labor market.

THE MALAYSIAN MIGRANT LABOR REGIME IN THE WAKE OF THE NASCENT BIOECONOMY

Since the early 20th century, Malaysia has relied on the 'import' of foreign labor, which led to the gradual institutionalization of a state regulated "labor migration regime" in the beginning of the 1970s (Garcés-Mascareñas, 2012, p. 56). Today, Malaysia has one of the largest migrant worker populations worldwide (Kotecha, 2018, p. 2). The largest shares consist of low-skilled workers from Indonesia, the Philippines, Nepal, Myanmar, India, and Bangladesh (ILO, 2016). For the most part, they work in the plantation, construction, and service sector (including domestic care) (Sugiyarto, 2015, pp. 281-282). The low wage level in these employment sectors was and still is an important determinant for their steady development and positive economic performance.

Historically, since colonial times, the economic development model of Malaysia was marked by an ethnic division of labor (Khoo, 2001, p. 181), which, in the course of the state's nation building, was later replaced by a segmentation of the labor market based on citizenship. The resulting regulation of labor migration "sought to let in migrant workers, but only in places where they were needed and for as long as they were needed" (Garcés-Mascareñas, 2012, p. 74). To this day, low-skilled workers migrating from different countries to Malaysia dominate certain low-wage segments of the Malaysian economy, whereas domestic workers are deployed in better-paid work, with higher skill requirements (Garcés-Mascareñas, 2012, pp. 49, 196).

The specific historical form of Malaysia's labor migration regime was always shaped by the competition between Malaysian and non-Malaysian wage workers on the labor market (Garcés-Mascreñas, 2012, p. 68; Kaur, 2006, p. 44; Khoo, 2000, p. 222). In the course of various waves of (de)regulation, labor migration became increasingly flexible (Kaur, 2004). Today, the relative share of low-skilled migrant workers depends on the one hand on the market demand for cheap labor and on the other hand on the political power of nationalist, employee-friendly actors to limit labor migration in favor of the domestic labor force (Garcés-Mascreñas, 2012). The tension between the concerns of the domestic labor force and the profit-driven interests of businesses and the state have steadily reinforced the segmentation of the Malaysian labor market. But the extensive use of low-skilled migrant workers must also be understood as a political strategy to curb a rapid rise in the general wage level (Garcés-Mascreñas, 2012, p. 62).

In taking the specifics of the Malaysian labor migration regime into account, the BTP is embedded in a historically grown socio-economic development and growth model in which the precarisation and flexibilization of migrant labor is historically rooted. As an economic development program, the BTP concentrates on the industrialization and expansion of the agricultural sector, with emphasis on the palm oil industry. In its economic and socio-economic dimension, the BTP is designed as a full value-chain approach promoting the establishment of small and medium bio-based businesses oriented towards the export market and the modernization of raw material supply (Kamal, 2015). For example, a partial strategy of the BTP targets an income increase for farmers of up to MYR 4,500 per month (approximately EUR 960) through buyback guarantees for raw materials and private-public partnerships creating links between agriculture and bio-based industries to improve the welfare of rural communities. In what way, the program plans to address the specific needs of rural households remains uncertain. While the BTP promotes the qualitative improvement of working and living conditions, the quantitative number of estimated new job opportunities is difficult to determine, ranging between 1,500 and 2,000 new jobs in the up- and downstream area of the palm oil industry within an indefinite timeframe (Kamal, 2016). Bearing in mind that more than half a million documented labor migrants are employed in the palm oil sector and that Malaysian workers receive preferential treatment over non-Malaysian workers on the labor market, it appears unlikely that low-skilled migrant workers will gain access to these new work areas. All political measures of enhancing working and living conditions of the rural population in the BTP are tailored to the domestic workforce (BiotechCorp, 10 April 2018; Khoo, 2000, p. 216, 2001, p. 184), excluding migrant workers from the socio-economic prospects of the program. But how do these political mechanisms of exclusion translate into everyday working and living conditions of migrant workers employed in the palm oil sector?

APPROACHING THE FIELD

The findings in this article are based on field research I carried out from February to April 2018. The qualitative fieldwork concentrated mainly on one-to-one interviews with low-skilled migrant workers in the palm oil sector, predominantly from Indonesia, in the East Malaysian state of Sabah.

NUMBER OF RESPONDENTS		OCCUPATION	AREA OF WORK
male	female		
6	4	plantation worker	Sandakan
1	2	plantation worker	Tawau
3	2	mill worker	Kunak
ethnic			
Bugis	6	7	
other	4	1	
age span approx.: 30-54 years old			
Total: 18			

Table 1. Informants' details (own compilation).

Expert interviews focusing on migrant workers and the bioeconomy in Malaysia with NGOs, a union representative, state institutions, and academics rounded out the findings from the interviews with migrant workers. Additionally, two smallholders that employed migrant workers were interviewed. Participant observation in the form of visiting palm oil plantations and mills as well as joining a strategy meeting of union secretaries complemented the field research.

The Malaysian palm oil industry consists of three main production sites: oil palm plantations, palm oil mills, and palm oil refinery plants. Low-skilled migrant workers dominate oil palm plantations and processing mills. Except for the specific production site they work in, they share core characteristics in working and living conditions. The group of migrant plantation workers encompasses all jobs linked to maintaining the estate (i.e., harvesting, fertilizing, collecting loose fruit, tree nursery, and basic services such as cleaning). This excludes, for example, the staff who is responsible for managing the production flow. In the case of mill workers, I concentrated on workers directly involved in processing procedures (e.g., operating the oil press or weighing fresh fruit bunches). I chose Sabah as my field site for two main reasons: First, the palm oil sector has become an important income source for the rural population in Sabah and currently records the highest growth rates within Malaysia. It is, therefore, an adequate site to analyze socio-economic transformation processes against the backdrop of the expansive development dynamic of the sector in the context of the BTP. Second, the standard of living in the predominantly rural areas of East Malaysia is considerably lower than in more urban and modern regions of Peninsular Malaysia. Accordingly, one strand of the Malaysian bioeconomy strategy explicitly focuses on the establishment of 'green' production branches in Sabah, targeting the advancement of living and working conditions in the East Malaysian state (Rahmat, 2015, pp. 6, 32-33, 36).

In order to understand in what ways the socio-economic measures of the BTP (dis)regard low-skilled migrant workers in the palm oil sector, the fieldwork sought to explore the socio-economic status of this group by gaining empirical insight into their current working and living conditions. I define the socio-economic status of workers as determined by their economic situation within a given, historically grown,

and socially embedded economic system (Mikl-Horke, 2011, p. 13; Weber, 1985). This provides insight into the objective living conditions of individuals or groups within society, induced, for example, by working conditions, access to education, and property (Mikl-Horke, 2011, p. 13). In doing so, the questionnaire covered the following topics: (1) general working conditions, (2) income situation and distribution, (3) organization of the family household (internal division of labor), (4) community life, (5) dealing with work and income related problems, and (6) future aspirations. The interviews were analyzed and coded following the procedure proposed by Richards (2005).

VARIATIONS IN WORKING AND LIVING CONDITIONS

The immediate living conditions of migrant plantation and mill workers in Malaysia vary according to the type of employer they work for. I interviewed workers employed by *smallholders*, *medium-sized companies*, and a large *international company*.¹ The living areas of workers employed by larger companies resemble village structures. Workers are accommodated side-by-side within the plantation or next to the mill in houses owned by the company assigned to them. While managers and the staff live in separate areas in more spacious and modern houses, plantation and mill workers' homes are all of the same basic design, regardless of the size or needs of the respective household. As a result, large households often appear crowded, lacking sufficient space for all family members.

Workers on large estates are provided with facilities, such as a small health clinic or a religious institution as well as with basic services like electricity, water, or a school bus for their children. Working and living on estates with basic infrastructure goes along with a certain self-contained communal life. Workers may shop in small grocery stores, participate in sport activities, and in many cases they live next door to family members. More importantly, larger estates are perceived as protected areas where migrant workers (who are not permitted to hold their own passports) are safe from deportation. Some respondents working for such companies hinted that they mostly stay within the estate. One worker even stated that she has never been to another estate: "[I was raised in this estate.] I have never been anywhere else. Until now I have grandchildren here" (female plantation worker, 13 March 2018). This especially applies to migrant plantation workers without a (valid) working permit and to those who migrated at an early age to Malaysia or were even born as second-generation workers on the estate.

In contrast, smaller companies are less well equipped and maintained. Respondents employed by such companies or by smallholders problematize the poor organization of the plantation infrastructure, which makes them more dependent on external facilities and services. On the other hand, workers are less monitored in their hours off work and enjoy more freedom of movement. Migrant workers

1 For the purpose of this article, I provisionally define a large company in the palm oil sector as an internationally operating enterprise, usually active on more than one link in the value chain. I define a medium-sized company as a business rather concentrated on one level within the value chain, primarily focused on national and regional markets. The distinction of business size by these criteria appears to be more useful for the purpose of this research than to differentiate them, for example, by the size of the plantation area or the enterprise value.

employed by smallholders or small companies often lack access to water, experience electricity cuts, or are provided with insufficient housing. One respondent working for a smallholder mentioned that his household suffers from irregular power supply, complaining that “it gets hot in the evening” (male plantation worker, 8 March 2018), while another smallholders’ worker stated that his family uses rain water and water from the pipeline connected to the farm for cooking and drinking and worried about its quality (male plantation worker, 9 March 2018).

Migrant plantation workers employed by smallholders regularly perform tasks autonomously and without guidance from plantation owners. While larger and medium-sized companies provide for basic training and safety briefings, smallholders’ workers receive no training at all and are forced to rely on previous work experience or self-taught skills. They usually stem from rural areas where they worked as farm laborers and/or practiced subsistence agriculture. Some of them arrive already having gained practical experience working with oil palms before. Smallholders are more concerned with selling the fresh fruit bunches (FFB) than with actively intervening in the production process. As a result, respondents working for smallholders get the impression they work on their own farm, which employers encourage by granting them far-reaching autonomy, as this statement of a smallholder exemplifies: “We just let them do it in their own way. . . . They are the ones who decide on when they should carry out [tasks]” (male smallholder, 22 March 2018). Furthermore, working for smallholders requires workers to perform multiple tasks, of which some are unpaid, and working hours are handled flexibly, whereas on the plantations of larger companies there is a distinct division of labor with fixed working hours and formalized rules concerning overtime. In consequence, even though workers of smallholders are formally waged workers, in practice their actual working conditions seem to resemble those of small farmers.

The BTP’s focus on training and skill development is based on the perception that through the promotion of private investments and the state support for higher education in the area of biomass production and biotechnology, the socio-economic status of the rural population will automatically improve. In the palm oil industry, employers do not promote any explicit measures to further the qualification of migrant workers. None of the respondents mentioned advanced training measures or job promotions, which would indicate steady skill-development. The enclosed space migrant plantation and mill workers live in isolates them from surrounding areas, which means they will not benefit from the prospects of the BTP to develop a modern rural infrastructure. The immediate living conditions of migrant workers are determined by their employer rather than by social policies. The implementation of the socio-economic objectives envisaged by the bioeconomy program, hence, depends on efforts made by private actors. While the BTP mentions the advancement of the living conditions of smallholders (BiotechCorp & MOSTI, n.d.), it does not address the fact that smallholders usually pass the pressure induced by the market onto their workers, which is why the particular precarious situation of their workers remains unchallenged.

THE TWO-LEVEL FAMILY HOUSEHOLD AS A SOCIO-ECONOMIC REFERENCE

When asked about personal property, land ownership, or future plans in the interviews, it became evident that the household is the most important socio-economic

reference point for migrant workers. Analytically, I divide the household in two interconnected spheres. The typical immediate *nuclear family household* encompasses a married couple with usually two or more children. The *transnational extended family household* might include parents, siblings, in-laws, and cousins in the country of origin as well as in Malaysia. Family members of both household levels undertake different economic roles. They either contribute or they are dependent on income from family members working in the Malaysian palm oil sector, performing reproduction or subsistence work in Malaysia or the country of origin. The division of labor within the nuclear family household in Malaysia is replicated in the extended family household as migrant workers depend on the reproduction work of family members at home, taking care of purchased land, children, or pregnant family members. Excluded from the public welfare system in Malaysia and with limited access to welfare services in their country of origin, the two-level family household serves as a socio-economic redistribution network (Ferguson & McNally, 2015, pp. 13-14). It functions as a cross-border support network concerning issues such as financial squeezes, care work, or job promotions. Especially the latter is important for migrant workers to gain foothold in Malaysia, as relatives who work or who are in touch with workers and employers in the palm oil sector help promote family members who seek to work for good employers.

The BTP is designed as a national development strategy which structurally disregards the transnational context that migrant workers are dependent on. While the need to support the two-level family household by working in Malaysia results from the marginalization of low-skilled migrant workers in their country of origin (Li, 2009), the internal organization of the household must be understood as a strategy to enforce social stability. Its economic organization helps their members to deal with their precarious working and living situations.

Insecurity of the Nuclear Family Household Income

Most respondents explained that they spend the largest share of their salary on basic needs, as one male mill worker stated: “I have no savings. All of it becomes food” (male mill worker, 15 March 2018). As a result, migrant workers must seek additional income should they encounter a budget squeezes or hope to advance their socio-economic status. The more immediate family members depend on income earned from working on a plantation or in a mill without contributing to the overall household income, the greater the pressure to find additional income sources – most of them being informal. This especially applies to family members who are residing or working illegally in Malaysia and are therefore excluded from the labor market. Almost all respondents had to deal with income insecurity on a daily basis, shifting between formal wage work and informal work. This includes, for example, female family members selling candy, pastries, or fruits to other plantation workers, the staff, or on the weekly market as well as sewing works for co-workers in return for small compensations or personal favors. The income of workers employed by smallholders is usually more precarious, as their basic salary varies significantly depending on the employers’ willingness and ability to pay, the amount workers are capable of harvesting, the weather, and other seasonal factors (Pye et al., 2012, pp. 333-334). A frustrated worker with multiple income sources exemplifies this situation:

My future depends on how many fruit bunches I can harvest. . . . To me, the amount paid [as wage] is not suitable. . . . But I also think about my employer. He also could not afford to give me a minimum wage. . . . I told my employer a few times to increase my salary but it still maintains the same. (male plantation worker, 9 March 2018)

Workers perceive the need to find various income sources as a form of flexibility in a twofold sense. On the one hand, they experience it as a form of freedom to gain additional income as long as they achieve targeted quotas. On the other hand, they constantly feel pressured to find additional income sources to sustain or advance the household's livelihood. Both contexts must be understood as an expression of migrant workers' precarity. An extreme example of this can be illustrated by the case of a worried male mill worker with six children. He stated that his family regularly suffers from food shortages. His salary is just enough to buy basic foods, such as rice, sugar, and salt. Only if he is able to work overtime or find other sources of income he can buy fresh fish and vegetables for his family (male mill worker, 15 March 2018). Formally considered as 'overtime', working extra hours to increase the household income or to acquire savings is actually an integral part of the typical workweek of migrant plantation and mill workers, blurring the lines between regular working hours and overtime.

In Malaysia, migrant workers will perform subsistence work if they have access to small pieces of land provided by their employers or by squatting land. In their country of origin, family members will use the remittances their relatives send from Malaysia to buy up and cultivate land for subsistence. When migrant workers return to their country of origin, the purchased land becomes their main income source and/or will be used to build a house. Consequently, owning and cultivating land has a big influence in both contexts, but is much harder to achieve for migrant workers in Malaysia than in the country of origin (Cramb & McCarthy, 2016, p. 54).

The socio-economic targets of the BTP align with the ideal of standard employment relationships and therefore the sphere of wage work. Thereby, the program fails to acknowledge diverse forms of precarious employment and the various modes of production migrant workers are engaged in as wage, subsistence, or informal workers. In order to improve their socio-economic status, migrant workers try to amass savings instead of seeking further qualification in the hope of finding better-paid jobs. Persistent income insecurity, the lack of employment opportunities at home, and absent possibilities for further skill development then blocks the way for long-term strategies to improve their standard of living, as proposed by the BTP.

CITIZENSHIP AND RESIDENCE STATUS

Migrant workers are legally prevented from establishing a life beyond working and living on the estate or the small piece of land provided by smallholders, unless they successfully apply for a Malaysian Identity Card (ID), which is as a rare possibility (Sabah Plantation Industry Employees Union [SPIEU], 14 March 2018). Many migrant workers, thus, lose – temporarily or permanently – their documented status. Such illegalized migrant workers may gain autonomy by working for the employer who

pays them best, as this statement demonstrates: “To me, an Indonesian citizen, if the employer pays one ringgit but another employer pays two ringgit, of course we will go there. I want to earn more” (male plantation worker, 14 March 2018). On the other hand, undocumented migrant workers may lose autonomy as they become dependent on a social network protecting, supporting, or even hiding them. Undocumented migrant workers may even depend on the employment of legal migrant workers. This can be illustrated by one case in which a female plantation worker helped her friend who works for a subcontractor, sharing her salary:

I was supposed to leave Malaysia in March but I do not want to go back with [my husband to Indonesia]. . . . I will not be here long [anymore]. My friends are doing good deeds to me although it is not legal. (female plantation worker, 14 March 2018)

The outlined nexus between the Malaysian labor migration regime and the socio-economic prospects of the BTP has shown that the socio-economic status of workers is substantially defined by the citizenship of workers and their legal status. Because low-skilled labor migrants are reduced to their labor power, managed and regulated through working permits and the market demand for cheap labor, the specific living circumstances are neglected by the socio-economic measures of the BTP. Especially illegalized workers fall beyond the reach of political policies such as those associated with the bioeconomy program. In order to sustain their livelihood in Malaysia, they rely on the help of their social network rather than on the support and protection of the state.

UNCERTAINTY AND FLEXIBLE ADAPTION

Uncertainty is caused by various factors. If workers are unable to carry out their work because of heavy rainfall, sickness, or a family issue that requires them to go back to their country of origin, they will not get paid. Uncertainty may also arise when workers are not in possession of a formal working contract, or when they are unaware of the content of the documents they are signing (SPIEU, 14 March 2018): “We just have to sign it only. We wouldn’t read it because the document is thick” (female mill worker, 16 March 2018). Some respondents were even unsure if they signed a working contract at all. Hence, the majority of the interviewed migrant workers were unaware of their legal rights, such as the right to join a union or to demand safety training and equipment.

Migrant workers try to cope with uncertainty through friends or relatives promoting workers to better-paid jobs, family members giving financial support, or establishing a network to share information about working conditions of different employers, legal rights, or the like. This way, migrant workers flexibly adapt to legal obstacles and socio-economic hurdles. If migrant workers’ households run short of money, it is a common coping strategy to either borrow money from relatives or buy groceries in a take-now-pay-later system. The latter may even be institutionalized by companies. For example, in case workers want to purchase food on credit from a small store within the estate, the company will deduct the outstanding payment from

the worker's next paycheck (male plantation worker, 14 March 2018). As especially precarious migrant workers may rely on the take-now-pay-later system to satisfy basic needs, a minimum standard of living based on debt becomes normalized.

This form of imposed flexibility again shows that migrant workers in the Malaysian palm oil industry tend to make use of informal networks to access better jobs or to cope with uncertainty rather than searching for training programs. The lack of basic knowledge about their rights and about opportunities to enter new areas of employment goes along with a general lack of knowledge about the BTP and its socio-economic targets. Consequently, migrant workers can direct neither expectations nor demands towards the Malaysian state in designing a socially inclusive bioeconomy that takes the specific needs of migrant workers in the palm oil sector into account.

FUTURE ASPIRATIONS: PROSPECTS OF SOCIAL MOBILITY

It is common for family members of migrant workers in the Malaysian palm oil industry to work in the same sector with little variations in working and living standards. In fact, the extended family network within Malaysia often encompasses the whole palm oil plantation sector, providing relatives with job opportunities and employers with new workers. This can apply to more than one generation as job positions may even be 'inherited': "My father promoted me for the job. He quit and went back to Indonesia. Then I replaced [him]" (male plantation worker, 09 March 2018).

Despite the fact that almost all respondents stated that their income from working in the Malaysian palm oil sector was enough to finance basic living expenses in Malaysia and that working conditions were considered at least moderate, many of them desire to do something else in the future. While future plans were articulated in an abstract manner, such as: "For my goal, I want to achieve something higher" (male plantation worker, 14 March 2018), two occasionally mentioned goals migrant workers shared stood out. First, some workers aimed to open up a small business once they return to their country of origin:

I want to have my own business. If I rely on my wage that I earn, I run out of money easily. . . . I have no capital to start. . . . Anything would do, as long as I'm self-employed. (female mill worker, 15 March 2018)

Second, in the case of migrant workers unable to settle permanently in Malaysia, plans for the future aligned with the general goal to possess land in their country of origin. Besides securing the livelihood of the extended family household, land ownership is an essential socio-economic resource and subsistence safeguard for migrant workers when they are required to leave Malaysia: "Now I don't have land back home. When it is time for me to leave Malaysia, I must buy a piece of land, do many things there" (male plantation worker, 14 March 2018). Both targets, being self-employed and acquiring land, are indirectly associated with the hope for a better life and upward mobility.

Furthermore, migrant workers directly raised the issue of social mobility in the context of future aspirations for their children. In order to achieve an improved

living standard for their children, education was identified as the most important factor: “If they do not want to go to school, they will end up like their mother. Look at your aunt, she is a teacher, every month she will get paid” (male plantation worker, 9 March 2018). Education is perceived a crucial strategy to escape harsh working and precarious living conditions.

The precarious socio-economic status of low-skilled migrant plantation and mill workers is reflected in their envisaged life perspectives. Often projected to the country of origin, plans for the future become abstract vanishing points without a definite understanding of how to achieve or finance them. Future aspirations shift, or may even become more concrete, when migrant workers have the opportunity to acquire a Malaysian ID, reinforcing future plans to building a life in Malaysia. When mentioning aspirations for their children, migrant workers take up the idea of social advancement through higher education and training presented in the BTP. Here, education is understood as an opportunity for the next generation to escape precarity and to step out of structural constraints with respect to upward mobility. As all migrant workers without permanent resident status mentioned, they want to return to their country of origin in the future to become (part-time) subsistence farmers, they may move even further away from the sphere of wage labor on which the BTPs social measures concentrate.

CONCLUSION

In this article I examined the question of what mechanisms are likely to exclude low-skilled migrant workers in the palm oil sector from the socio-economic restructuring measures proposed by the Malaysian bioeconomy program. In order to answer this question, I initially argued that the BTP equates further qualification and training with an improvement of employment opportunities, higher income, and the advancement of the standard of living of the rural population. Furthermore, I showed that the segmentation of the labor market, which functions as a mechanism of political exclusion of low-skilled migrant workers from better employment opportunities, remains unchallenged by the BTP. As domestic workers receive preferential treatment on the labor market, and socio-economic policies in the context of the BTP address directly this group, the specific precariousness of low-skilled migrant workers in the palm oil industry is disguised. The BTP politically reinforces the existent migrant labor regime, whereby low-skilled migrant workers are solely treated as cheap sources of labor excluded from measures of socio-economic advancement. Hence, only a small part of the rural workforce – predominantly already established smallholders and workers employed in downstream areas of the palm oil industry – can be expected to benefit from the measures proposed by the BTP.

Moreover, by investigating the socio-economic status of migrant workers in the palm oil sector in the state of Sabah, the article revealed that the BTP operates within existing patterns of social inequality in which the political exclusion of low-skilled migrant workers from the socio-economic prospects of the program translates into social barriers preventing them from enhancing their working and living conditions through the establishment of a bioeconomy. The analysis of the interviews with migrant workers has shown that general living and working conditions as well

as further training of low-skilled migrant workers in the palm oil industry depend on efforts undertaken by employers rather than on social policies. In this context, I argued that migrant workers are excluded from the socio-economic measures of the BTP. Ultimately, it is not in the interest of employers and companies to promote the further training and skill development of their workers since low-skilled migrant workers are deployed to perform heavy manual labor that is highly unattractive to Malaysian workers and, especially in the palm oil plantation sector, hard to rationalize.

Designed as a national development strategy, the BTP disregards the context of the transnational household, which is the most important reference point for migrant workers when determining their socio-economic status. Furthermore, in order to improve their socio-economic status, migrant workers focus on savings instead of seeking further qualification in the hope of finding better-paid jobs. Income insecurity and absent opportunities for further skill development in the Malaysian palm oil sector block the way for long-term strategies to advance their living standard, as proposed by the BTP. Illegalized workers especially become excluded from political policies such as those associated with the BTP.

In summary, the mechanisms of exclusion presented in this article are mediated through the political reinforcement of the labor migration regime, the neglect of the socio-economic importance of the transnational family household and its internal division of labor, the lack of access to and opportunities for further training, and the one-dimensional concentration of the BTPs socio-economic measures on the sphere of wage work. These mechanisms of exclusion indicate that it is unlikely that low-skilled migrant workers in the palm oil industry will improve their working and living conditions in the course of the establishment of a bioeconomy in Malaysia.



REFERENCES

- Anderson, Z. (2016). Assembling the 'field': Conducting research in Indonesia's emerging green economy. *Austrian Journal of South-East Asian Studies* 9(1), 173-190.
- Arujanan, M., & Singaram, M. (2018). The biotechnology and bioeconomy landscape in Malaysia. *New Biotechnology*, 40(1), 52-58.
- BiotechCorp, & MOSTI. (2017). *Embracing change, enhancing success. Progress report 2016 and 2017*. Kuala Lumpur.
- BiotechCorp, & MOSTI. (n.d.). *Bioeconomy Community Development Programme*. Putrajaya/ Kuala Lumpur.
- Birch, K. (2019). *Neoliberal bio-economies? The co-construction of markets and natures*. Cham: Palgrave Macmillan.
- Birch, K., & Tyfield, D. (2015). Biowert, Biokapital – oder was sonst? Theoretische Überlegungen zur Bioökonomie. *PROKLA*, 45(1), 11-32.
- Bissonnette, J.-F. (2012). *Envisioning agribusiness: Land, labour and value in a time of oil palm expansion in Indonesia*. PhD dissertation, Graduate Department of Geography, University of Toronto.
- Bude, H., & Willisch, A. (2006). *Das Problem der Exklusion. Ausgegrenzte, Entbehrliche, Überflüssige*. Hamburg: Hamburger Edition.
- Brand, U., & Wissen, M. (2015). Strategies of a green economy, contours of a green capitalism. In K. van der Pijl (Ed.), *Handbook of the international political economy of production* (pp. 508-523). Cheltenham: Edward Elgar Publishing.

Excluding Migrant Labor From the Malaysian Bioeconomy

- Cramb, R. (2016). The political economy of large-scale oil palm development. In R. Cramb & J. McCarthy (Eds.), *The oil palm complex. Smallholders, agribusiness and the state in Indonesia and Malaysia* (pp. 189-246). Singapore: NUS Press.
- Cramb, R., & McCarthy, J. (2016a). Characterising oil palm production in Indonesia and Malaysia. In R. Cramb & J. McCarthy (Eds.), *The oil palm complex. Smallholders, agribusiness and the state in Indonesia and Malaysia* (pp. 22-77). Singapore: NUS Press.
- Cramb, R., & McCarthy, J. (Eds.). (2016b). *The oil palm complex. Smallholders, agribusiness and the state in Indonesia and Malaysia*. Singapore: NUS Press.
- DOSM. (2017). *Malaysia economy Q4 2017*. Retrieved from https://www.dosm.gov.my/v1/index.php?r=column/cthemByCat&cat=100&buL_id=emUyMzI4eElNK0hZQzRyaEgyZGhlZz09&menu_id=TE5CRUZCb1h4ZTZMODZlbnk2aWRRQT09
- Ferguson, S., & McNally, D. (2015). Precarious migrants: Gender, race and the social reproduction of the global working class. *Socialist Register*, 51, 1-23.
- Ford, M. (2014). Contested borders, contested boundaries. The politics of labour migration in Southeast Asia. In R. Robison (Ed.), *Routledge handbook of Southeast Asian politics* (pp. 305-314). New York: Routledge.
- Garcés-Mascareñas, B. (2012). *Labour migration in Malaysia and Spain. Markets, citizenship and rights*. Amsterdam: Amsterdam University Press.
- ILO. (2016). *Triangle in ASEAN quarterly briefing note. Malaysia, July-September 2017*. Retrieved from https://ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/publication/wcms_580148.pdf
- Kamal, M. (2016). *Waste not the oil palm biomass*. Retrieved from <http://www.bioeconomycorporation.my/waste-not-the-oil-palm-biomass/?hilite=%27Palm%27%2C%27Oil%27>
- Kamal, M. (2015). *Bioeconomy Malaysia. Delivering a green potential for the palm oil industry*. Retrieved from http://biomalaysia.bioeconomycorporation.my/speakerssliders/day1/session1pinang/20150813_Dato%20CEO%20Opening%20Remarks_BioMalaysia%20%20ASEAN%20Bioeconomy%202015_Draft_v1.pdf
- Kaur, A. (2006). Order (and disorder) at the border: Mobility, international labour migration and border controls in Southeast Asia. In A. Kaur & I. Metcalfe (Eds.), *Mobility, labour migration and border controls in Asia* (pp. 35-61). Wiesbaden: Springer VS.
- Kaur, A. (2004, June/July). Mobility, labour mobilisation and border controls: Indonesian labour migration to Malaysia since 1900. Conference paper, 15th Biennial Conference of the Asian Studies Association of Australia, Canberra, Australia.
- Kaur, A., & Metcalfe, I. (Eds.). (2006). *Mobility, labour migration and border controls in Asia*. Wiesbaden: Springer VS.
- Khoo, B. (2001). The State and the market in Malaysian political economy. In G. Rodan, K. Hewison, & R. Robison (Eds.), *The political economy of South-East Asia. Conflicts, crises, and changes* (pp. 178-205). Oxford: Oxford University Press.
- Khoo, B. (2000). Economic nationalism and its discontents: Malaysian political economy after July 1997. In R. Robison, M. Beeson, K. Jayasuriya, & H.-R. Kim (Eds.), *Politics and markets in the wake of the Asian Crisis* (pp. 212-237). New York: Routledge.
- Kotecha, A. (2018). *Malaysia's palm oil industry*. Retrieved from https://static1.squarespace.com/static/5592c689e4b0978d3a48f7a2/t/5b9a15db88251b25f1bc59d1/1536824861396/Malaysia_Analysis_120218_FINAL.pdf
- Kronauer, M. (2010). *Exklusion. Die Gefährdung des Sozialen im hoch entwickelten Kapitalismus*. Frankfurt a. M.: Campus.
- Li, T. (2016). Situating transmigration in Indonesia's labour migration: A perspective from Sarawak. In R. Cramb & J. McCarthy (Eds.), *The oil palm complex. Smallholders, agribusiness and the state in Indonesia and Malaysia* (pp. 354-377). Singapore: NUS Press.
- Li, T. (2015). *Social impacts of palm oil in Indonesia*. Retrieved from http://www.cifor.org/publications/pdf_files/OccPapers/OP-124.pdf
- Li, T. (2014). *Land's end. Capitalist relations on an indigenous frontier*. Durham: Duke University Press.

- Li, T. (2009). To make live or let die? Rural dispossession and the protection of surplus populations. *Antipode*, 41(1), 66-93.
- Lindquist, J. (2017). Brokers, channels, infrastructure: Moving migrant labor in the Indonesian-Malaysian oil palm complex. *Mobilities*, 12(2), 1-14.
- McCarthy, J. (2010). Processes of inclusion and adverse incorporation: Oil palm and agrarian change in Sumatra, Indonesia. *The Journal of Peasant Studies*, 37(4), 821-850.
- McCarthy, J., & Zen, Z. (2016). Agribusiness, agrarian change, and the fate of the oil palm smallholders in Jambi. In R. Cramb & J. McCarthy (Eds.), *The oil palm complex. Smallholders, agribusiness and the state in Indonesia and Malaysia* (pp. 109-154). Singapore: NUS Press.
- McCormick, K., & Kautto, N. (2013). The bioeconomy in Europe. An overview. *Sustainability*, 5(6), 2589-2608.
- Mikl-Horke, G. (2011). *Historische Soziologie, Sozioökonomie, Wirtschaftssoziologie*. Wiesbaden: Springer VS.
- Missbach, A., & Palmer, W. (2018). *Indonesia: A country grappling with migrant protection at home and abroad*. Retrieved from <https://www.migrationpolicy.org/article/indonesia-country-grappling-migrant-protection-home-and-abroad>
- Mohr, K. (2005). Stratifizierte Rechte und soziale Exklusion von Migranten im Wohlfahrtsstaat. *Zeitschrift für Soziologie*, 34(4), 383-398.
- Neilson, J. (2016). Agrarian transformations and land reform in Indonesia. In J. McCarthy & K. Robinson (Eds.), *Land and development in Indonesia. Searching for the people's sovereignty* (pp. 245-264). Singapore: ISEAS.
- OECD. (2017). *Employment implications of green growth: Linking jobs, growth, and green policies*. Retrieved from <https://www.oecd.org/environment/Employment-Implications-of-Green-Growth-OECD-Report-G7-Environment-Ministers.pdf>
- Peluso, N., & Lund, C. (Eds.). (2013). *New frontiers of land control*. New York: Routledge.
- Pichler, M. (2015). Legal dispossession: State strategies and selectivities in the expansion of Indonesian palm oil and agrofuel production. *Development and Change*, 46(3), 508-533.
- Pries, L. (2018). Internationalisierung von Arbeitsmobilität durch Arbeitsmigration. In F. Böhle, G. Voß, & G. Wachtler (Eds.), *Handbuch Arbeitssoziologie. Band 2: Akteure und Institutionen* (pp. 451-473). Wiesbaden: Springer VS.
- Pye, O. (2017). A plantation precariate: Fragmentation and organizing potential in the palm oil global production network. *Development and Change*, 48(5), 942-964.
- Pye, O. (2015). Transnational space and workers' struggles. Reshaping the palm oil industry in Malaysia. In K. Dietz, B. Engels, O. Pye, & A. Brunnengräber (Eds.), *The political ecology of agrofuels* (pp. 186-201). London: Routledge.
- Pye, O. (2013). Introduction. In O. Pye & J. Bhattacharya (Eds.), *The palm oil controversy in Southeast Asia. A transnational perspective* (pp. 1-18). Singapore: ISEAS.
- Pye, O. (2009). Palm oil as a transnational crisis in South-East Asia. *Austrian Journal of South-East Asian Studies*, 2(2), 81-101.
- Pye, O., Daud, R., Harmono, Y., & Tatat (2012). Precarious lives: Transnational biographies of migrant oil palm workers. *Asia Pacific Viewpoint*, 53(3), 330-342.
- Pye, O., Daud, R., Manurung, K., & Siagan, S. (2016). *Workers in the palm oil industry. Exploitation, resistance and transnational solidarity*. Retrieved from https://www.asienhaus.de/archiv/user_upload/Palm_Oil_Workers_-_Exploitation__Resistance_and_Transnational_Solidarity.pdf
- Rahmat, S. (2015). Global value chains and the role of innovation for sustainable palm oil: An international bioeconomy analysis for Malaysia. PhD dissertation, Department of Agriculture, Rheinischen Friedrich-Wilhelms-Universität Bonn.
- Richards, L. (2005). *Handling qualitative data. A practical guide*. London: SAGE.
- Sanderson, S. (2016). Malaysian oil palm and Indonesian labour migration: A perspective from Sarawak. In R. Cramb & J. McCarthy (Eds.), *The oil palm complex. Smallholders, agribusiness and the state in Indonesia and Malaysia* (pp. 378-408). Singapore: NUS Press.
- Saravanamuttu, J. (2013). The political economy of migration and flexible labour regimes. The case of the oil palm industry in Malaysia. In O. Pye & J. Bhattacharya (Eds.), *The palm oil controversy in Southeast Asia. A transnational perspective* (pp.120-139). Singapore: ISEAS.

- Sugiyarto, G. (2015). Internal and international migration in Southeast Asia. In I. Coxhead (Eds.), *Routledge handbook of Southeast Asian economics* (pp. 270-299). New York: Routledge
- Tenaganita. (2002). *Poisoned and silenced. A study of pesticide poisoning in the plantation*. Retrieved from https://www.publiceye.ch/fileadmin/doc/Pestizide/2002_EvB_Poisoned-and-Silenced.pdf
- UBA. (2014). *Arbeit und Qualifikation in der Green Economy*. Retrieved from <https://www.umweltbundesamt.de/publikationen/arbeit-qualifikation-in-der-green-economy>
- USDA. (2018). *Oilseeds: World markets and trade, December 2018*. Retrieved from <https://downloads.usda.library.cornell.edu/usda-esmis/files/tx31qh68h/ng451n501/gt54ks07t/oilseeds.pdf>
- Weber, M. (1985). *Wirtschaft und Gesellschaft. Grundriss der verstehenden Soziologie*. Tübingen: J.C.B. Mohr.
- White, B., & Dasgupta, A. (2010). Agrofuels capitalism: A view from political economy. *The Journal of Peasant Studies*, 37(4), 593-607.

ABOUT THE AUTHOR

Janina Puder is a sociologist and researcher in the Junior Research Group “Bioeconomy and Inequalities. Transnational Entanglements and Interdependencies in the Bioenergy Sector” at the Friedrich Schiller University Jena, Germany. In her PhD project she observes transnational rural labor conditions in the context of the emerging bioeconomy in Malaysia exemplified by the case of migratory labor.

► Contact: janina.puder@uni-jena.de

ACKNOWLEDGEMENTS

The research was funded by the German Federal Ministry of Education and Research (BMBF) in the course of the Junior Research Group “Bioeconomy and Inequalities. Transnational Entanglements and Interdependencies in the Bioenergy Sector”. I would like to thank the members of the Junior Research Group, two anonymous reviewers, and the editors of ASEAS for their helpful comments as well as Ramlah Binti Daud and Ryan Mukit from the Universiti Malaysia Sabah (UMS) for their support during my field research.